The present application has been reviewed in light of the Office Action dated

November 12, 2009. Claims 1, 7-10, and 24 are presented for examination, of which Claims

1 and 9 are in independent form.

Claims 1, 7-10 and 24 were rejected under 35 U.S.C. § 112, first paragraph, as

failing to comply with the written description requirement and under 35 U.S.C. § 112, second

paragraph, as being indefinite. The Applicant respectfully traverses these rejections and

requests reconsideration.

According to the Office Action, the written description does not provide

adequate support for the claim limitation:

> a bitplane decoding step of reclaiming the plurality of coefficients of the
> plurality of subbands from encoded data of bitplanes or sub-bitplanes.

Applicant respectfully disagrees. Paragraphs [0149], [0150] and [0153] of the

original specification (copied below from the published application, with emphasis) provide

support for this claim limitation:

> [0149] In the moving image decoding apparatuses of the first and second
> embodiments, a non-decoding part is determined for respective bitplanes.
> Alternatively, bits in a bitplane may be categorized into <u>a plurality of passes
> (sub-bitplanes)</u> based on encoded parts around the bit of interest, and a
> non-decoding part may be determined for respective passes. An embodiment that
> determines the non-decoding parts for respective passes will be explained below.

> [0150] The process for generating encoded moving image data to be decoded by
> the moving image decoding apparatus of the third embodiment is basically the
> same as that of the moving image encoding apparatus 200 shown in FIG. 1,
> except for the method of encoding bitplanes in the bitplane encoder 204, i.e.,
> that the encoder 204 encodes one bitplane while breaking it up into a plurality of
> passes, as described above. <u>Although a description of a detailed pass
> segmentation method will be omitted for the sake of simplicity, encoding is done
> by the same method as the bitplane encoding method in JPEG2000 described in</u>

the ISO/IEC15444-1 recommendation. In JPEG2000, encoding is done while breaking up into three passes except for the most significant bitplane. Therefore, if the effective bit number of given subband Sb is $N_{BP}(Sb)$, encoding is done by $(N_{BP}(Sb)-1) \times 3+1$ passes. Let CSP(Sb, n) be codes generated by respective passes (n is a pass number; the first pass number=$(N_{BP}(Sb)-1) \times 3$ and the last pass number=0).

* * *

[0153] The bitplane decoder 102 extracts bits of respective passes by decoding pass encoded data CSP(Sb, n) by the decoding process that forms a counterpart of the bitplane encoding process of the aforementioned moving image encoding apparatus 200, thus reclaiming subband coefficients. At this time, in the moving image decoding apparatus 100 of the first embodiment, the non-decoding bitplane determination unit 107 designates the lower bitplane numbers ND(Sb) which are not to be decoded. However, in the third embodiment, the non-decoding bitplane determination unit 107 designates the numbers NDP(Sb) of lower passes which are not to be decoded, and the bitplane decoder 102 skips the decoding process of lower NDP(Sb) passes. More specifically, the decoder 102 skips the decoding process from CSP(Sb, NDP(Sb)-1) to CSP(Sb, 0).

As expressly described in the written description, the bitplane decoder decodes pass encoded data by the decoding process that forms a counterpart of the bitplane encoding process, which includes bitplanes categorized into a plurality of passes, *i.e.* both bitplanes and sub-bitplanes. As further described, the decoding process is a counterpart of the encoding process, which is accomplished by using the same method as the bitplane encoding method in JPEG2000 described in the ISO/IEC15444-1 recommendation. As described in the JPEG2000, and explained in the specification of the subject application, encoding is done on one bitplane while breaking it up into three passes except for the most significant bitplane. Accordingly, Applicant submits that the limitation of "a bitplane decoding step of reclaiming the plurality of coefficients of the plurality of subbands from encoded data of bitplanes or sub-bitplanes" is clearly supported by the written description.

Applicant also respectfully disagrees with the assertion that the specification does not support the claim limitation:

> managing a table which stores the number N(s, i) of lower bit-planes or lower sub-bitplanes that are not to be decoded for each subband s and each index i, wherein N(s, i+1) ≥ N(s, i),

Applicant refers the Examiner to the table shown in Fig. 8, which this claim limitation represents. The table particularly represents the correspondence between variables Q (*i.e.*, "Q factors") and the non-decoding bitplane numbers of respective subbands "s" (*i.e.*, HH2, HL2(LH2), HH1, HL(LH1), and LL). The index "i" in Claim 1 is the index corresponding to the variable "Q". Further support for this claim limitation may be found in the specification at paras. [0264]-[0265], which describes an example of a configuration of the table registered with the non-decoding bitplane numbers of respective subbands according to the Q factor values.

As shown in the table, for each increment of "i" (*i.e.*, N(s, i+1)), the value of the number is greater than or equal to the previous value (*i.e.*, N(s, i+1) ≥ N(s, i)). For example, N(HH2, i=0) = 0 and N(HH2, i=1) = 1, N(HH2, i=7) = 6 and N(HH2, i=8) = 6.

Accordingly, it is believed that the rejections of Claims 1, 7-9 and 24 under Section 112, first and second paragraphs, have been obviated, and their withdrawal is therefore respectfully requested.

Independent Claim 9 is believed to be patentable for at least the same reasons as discussed above with respect to Claim 1.

The other rejected claims in this application depend from one or another of the independent claims discussed above and, therefore, are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of

the invention, individual reconsideration, as the case may be, of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

No petition to extend the time for response to the Office Action is deemed necessary for the this Amendment. If, however, such a petition is required to make this Amendment timely filed, then this paper should be considered such a petition and the Commissioner is authorized to charge the requisite petition fee to Deposit Account 50-3939.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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